

No. 828,249.

PATENTED AUG. 7, 1906.

A. SIEMS.
METALLIC PACKING FOR STUFFING BOXES.
APPLICATION FILED SEPT. 12, 1905.

Fig. 1

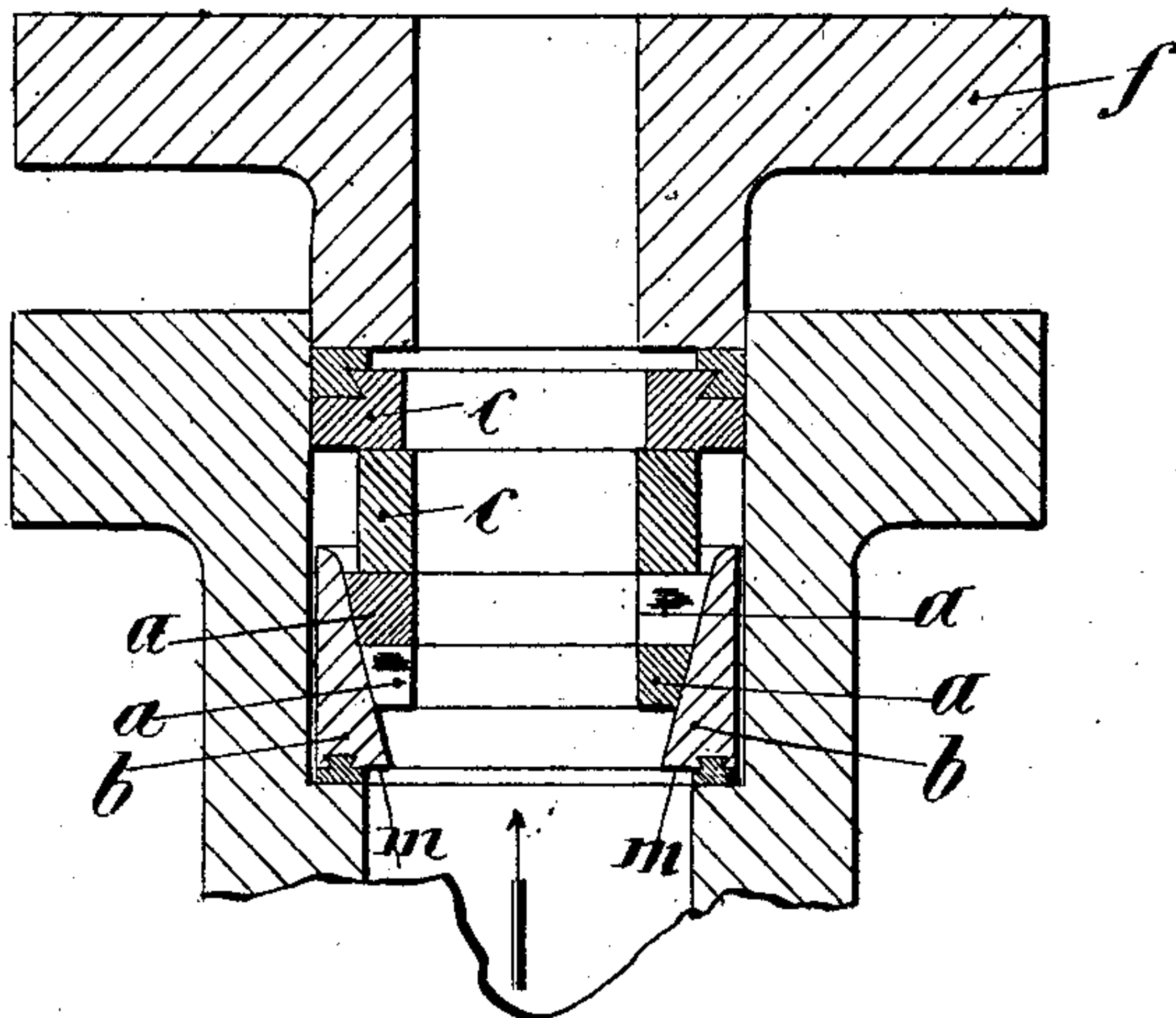
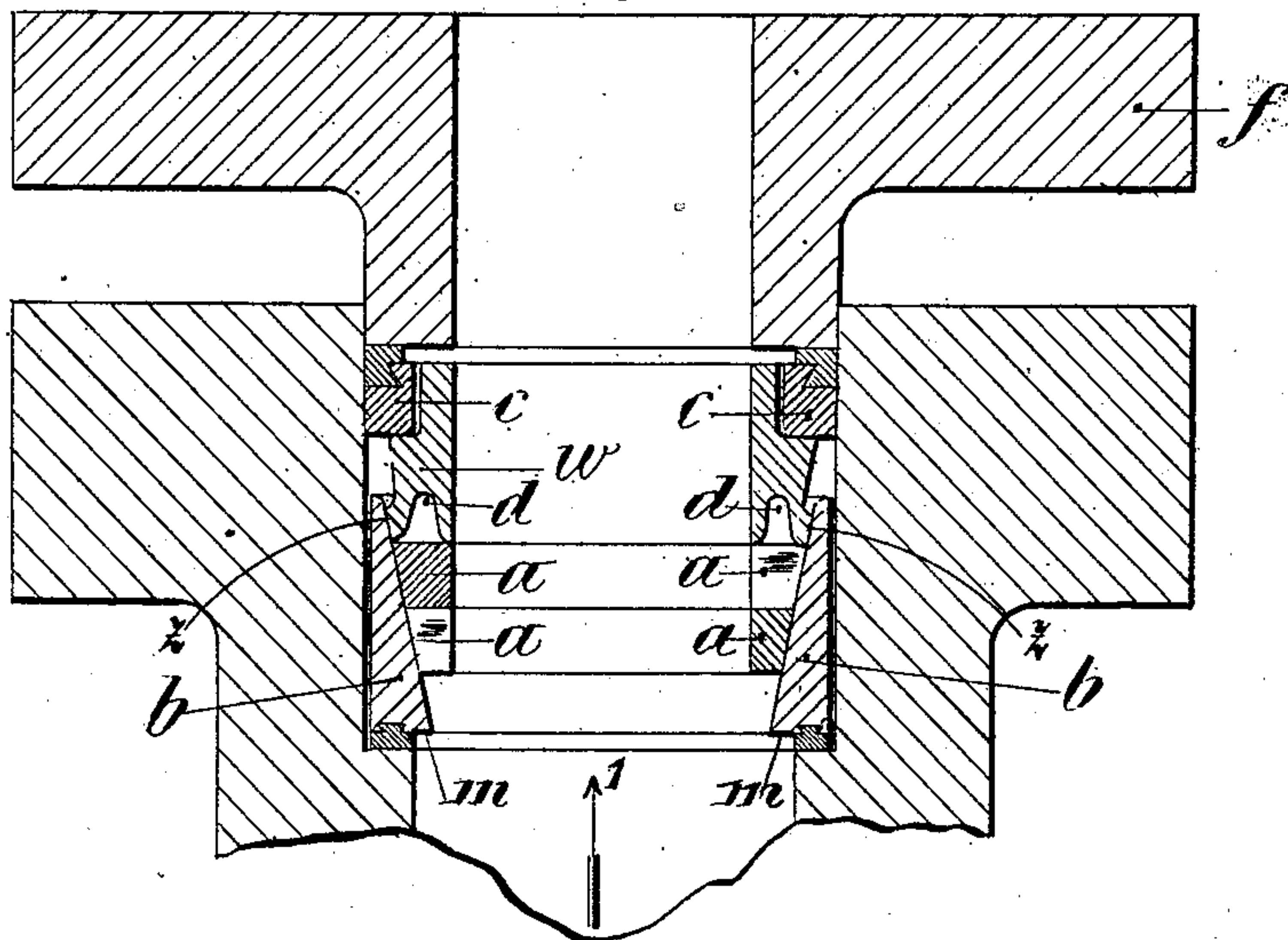


Fig. 2



Witnesses
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ALBERT SIEMS, OF VIENNA, AUSTRIA-HUNGARY.

METALLIC PACKING FOR STUFFING-BOXES.

No. 828,249.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed September 12, 1905. Serial No. 278,135.

To all whom it may concern:

Be it known that I, ALBERT SIEMS, foreman, a citizen of the Empire of Austria-Hungary, residing at Vienna, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Metallic Packing for Stuffing-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to stuffing-box packings entirely made of metal; and it has for its object to prevent the bad effects of the steam-pressure which forces the rings with detrimental friction against the piston-rod.

15 In the accompanying drawings, forming part of this specification, Figure 1 is a section through a stuffing-box of known construction. Fig. 2 is a section through a stuffing-box embodying the new features, as will be described hereinafter and pointed out in the claim.

In these stuffing-box packings in which, as shown in Fig. 1, split rings *a a* are employed, which are conically formed upon their outer periphery and which are surrounded by a hopper-shaped liner *b* upon the free lower end face *m*, of which the steam acts upwardly in the direction indicated by the arrow 1, the conical rings *a a* are tightened up by the transmission of the pressure of the flanged collar *f* onto the rings *a* by means of appropriate parts *c*. In operation, however, there is added to the pressure with which the parts are assembled, which is transmitted through the flanged collar *f*, that pressure which, as already stated, arises from the fact that the hopper *b* is pressed upward by the steam-pressure acting upon its lower face *m* in the direction of the arrow 1. By this means the conical rings *a a* are still more vigorously pressed together. This compression of the rings *a*, which is produced by the steam-pressure, is desirable to a certain extent, as by this means the expansion of the rings *a*, which is caused by heating, is nullified. In

other respects, however, its action is prejudicial, because the rings *a* are pressed against the piston-rod more than is necessary for forming a tight joint, thereby causing unnecessary friction and excessive wear of the rings *a* and rod *v*. Now in order not to entirely prevent this compression of the rings *a* by the upward pressure of the hopper-shaped liner, while, on the other hand, preventing it from exceeding a certain limit, in accordance with the present invention is arranged, as shown in Fig. 2, the intermediate part *w*, acting upon the split rings *a a*, the said part *w* being conically formed at *z* upon its outer periphery in such a manner that it bears against the conical inner face of the liner *b* and acts upon this latter, so that its upward displacement can only take place to the extent that the part *w* is able to penetrate into the hopper *b*.

In order that excessive resistance may not be opposed to the sliding upward of the hopper *b*, a channel *d* is formed on the end face of the part *w*, so that the conically-formed outer wall *z* is able to yield somewhat.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

A packing for stuffing-boxes comprising the split cones *a, a*, and the counterbored ring *b* in combination with an intermediate ring *w* adapted to transfer the pressure of the flange-collar *f* upon the cones *a a*, having a deep annular groove *d* in its front surface and a bevel at the outer edge which corresponds to the bore of the ring *b*, substantially as described and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in presence of two witnesses.

ALBERT SIEMS.

Witnesses:

FRIEDRICH BINDER,
ALVESTO S. HOGUE.